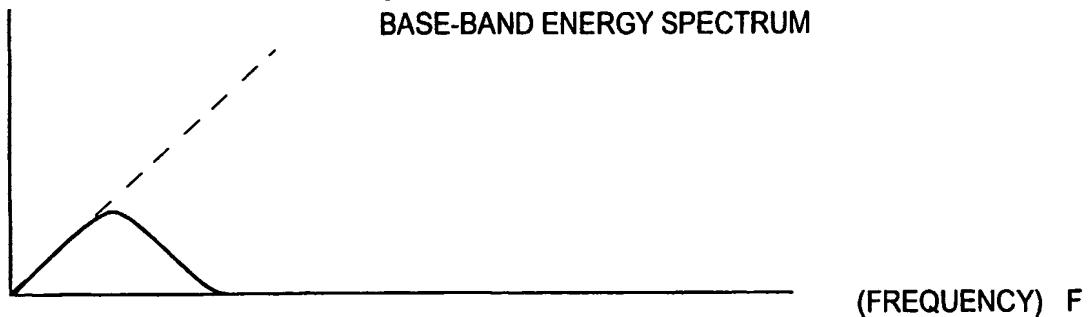


1/17

Fig. 1
CARRIER BORNE ENERGY SPECTRUM



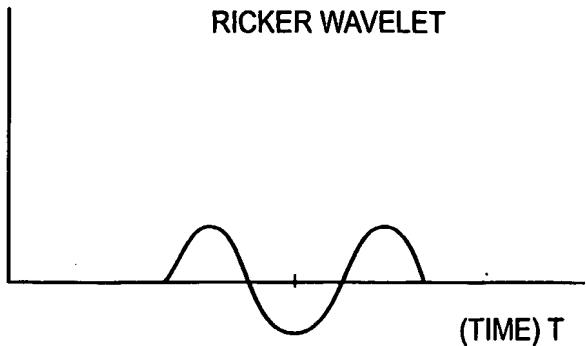
Fig. 2
SELF-DEMODULATED
BASE-BAND ENERGY SPECTRUM



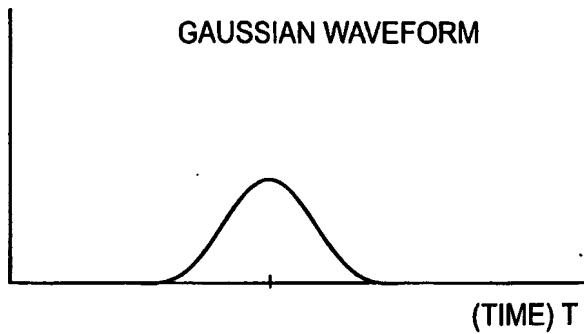
2/17

Fig. 3

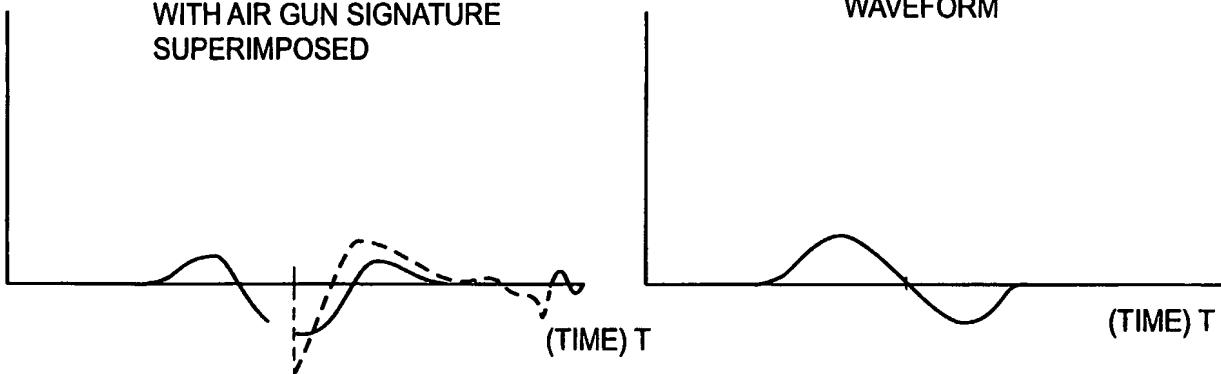
RICKER WAVELET

**Fig. 4**

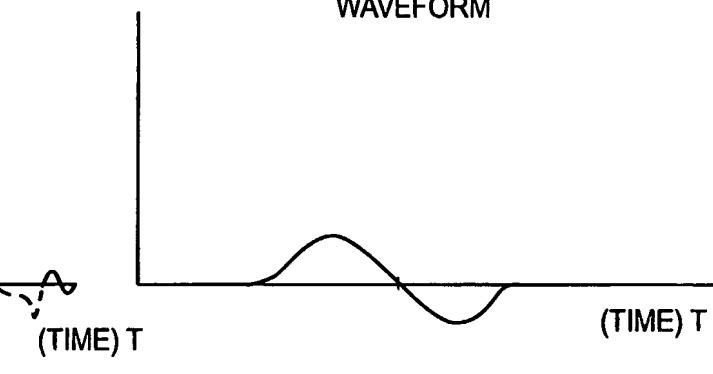
GAUSSIAN WAVEFORM

**Fig. 6**

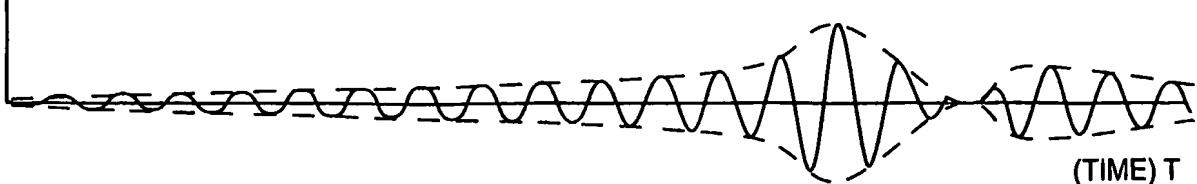
SECOND DERIVATIVE OF
GAUSSIAN WAVEFORM
(QUASI-RICKER WAVELET)
WITH AIR GUN SIGNATURE
SUPERIMPOSED

**Fig. 5**

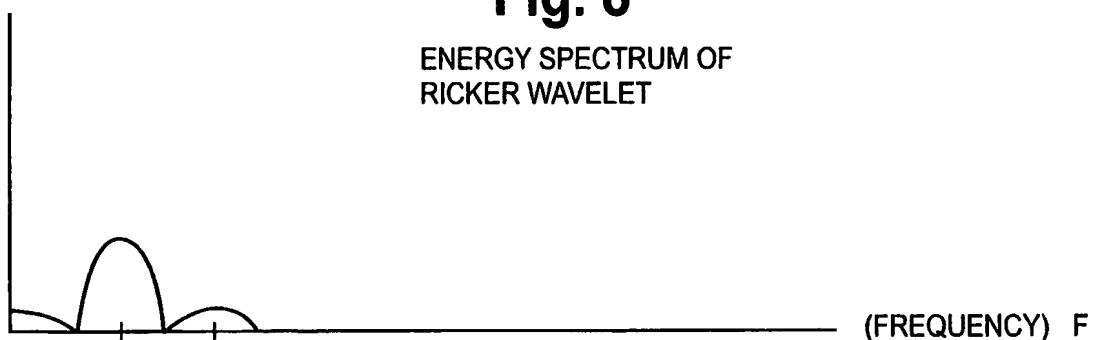
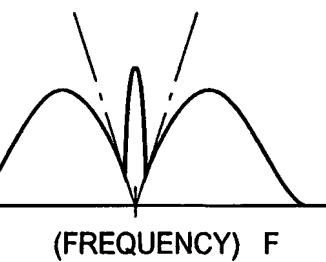
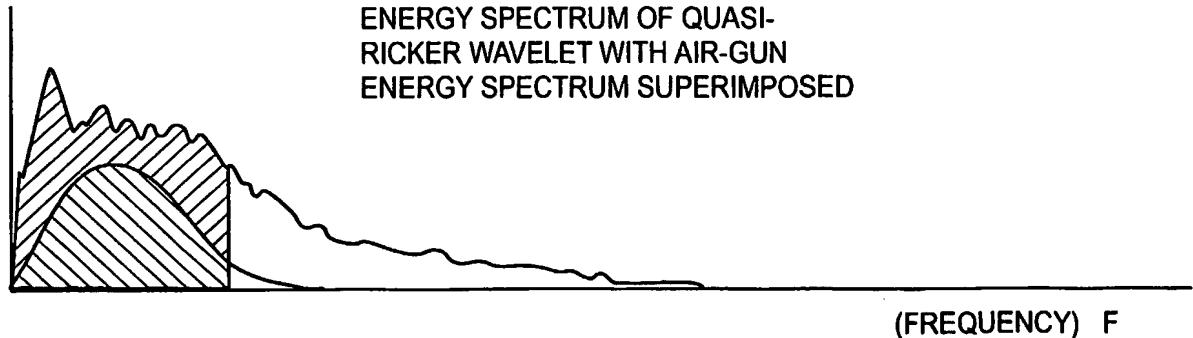
FIRST DERIVATIVE
OF GASSIAN
WAVEFORM

**Fig. 7**

PULSED CARRIER BORNE WAVEFORM
USED TO GENERATE QUASI-RICKER
WAVELET THROUGH NONLINEAR
SELF-DEMODULATING, FAR-FIELD INTERACTION



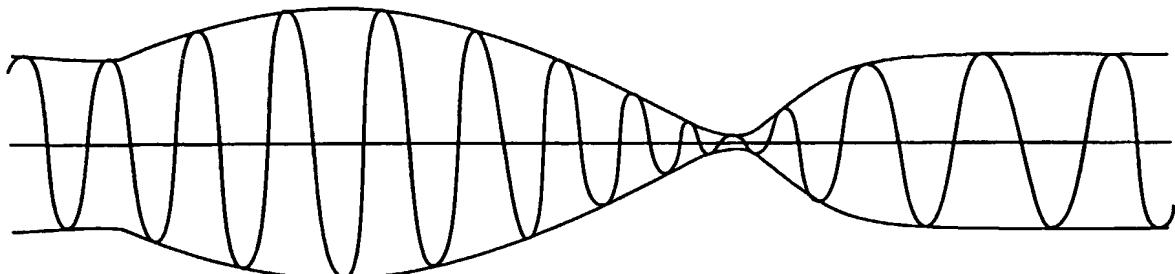
3/17

Fig. 8ENERGY SPECTRUM OF
RICKER WAVELET**Fig. 9**ENERGY SPECTRUM OF
CARRIER-BORNE WAVEFORM
USED TO GENERATE
QUASI-RICKER WAVELET**Fig. 10**ENERGY SPECTRUM OF QUASI-
RICKER WAVELET WITH AIR-GUN
ENERGY SPECTRUM SUPERIMPOSED

4/17

Fig. 11

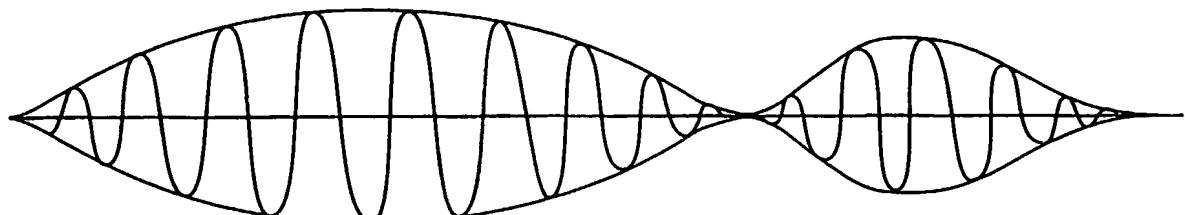
PREDISTORTED (I.E., FIRST-DERIVATIVE)
GAUSSIAN WAVEFORM PLUS DC OFFSET

**Fig. 12**

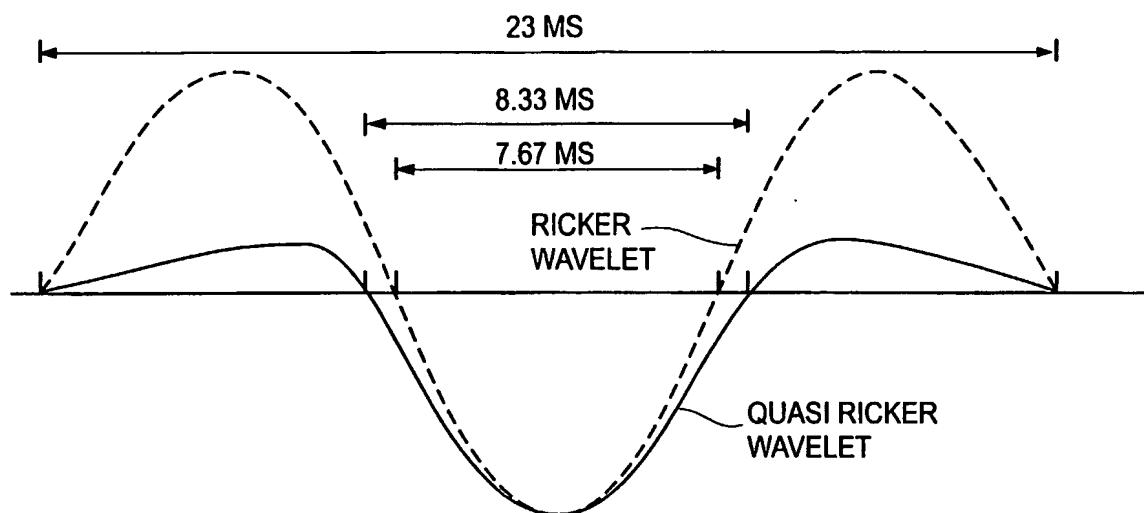
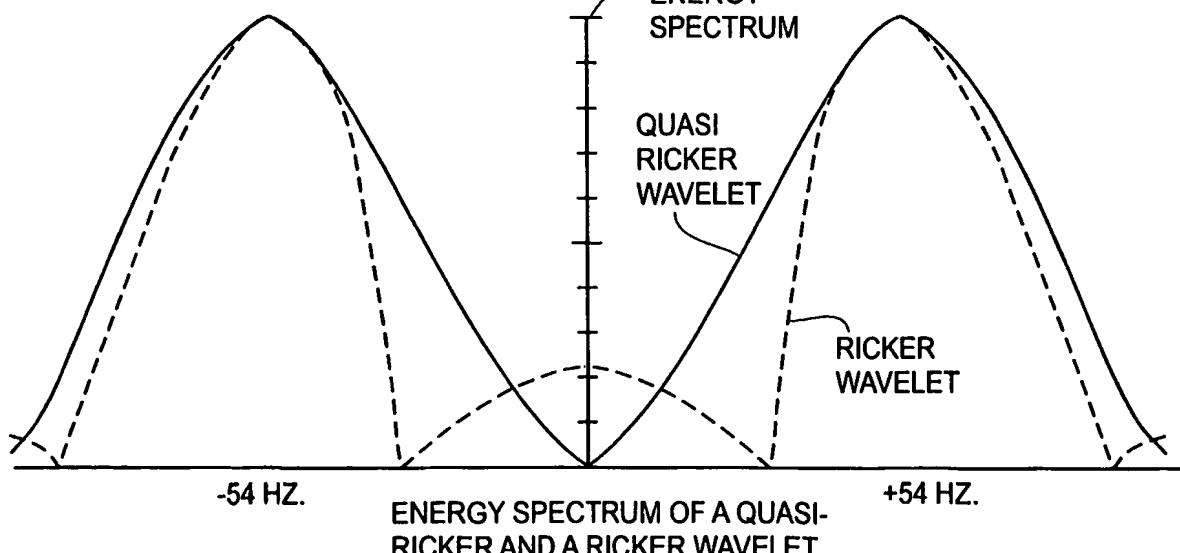
TAPERED ENVELOPE
GATING FUNCTION

**Fig. 13**

COMPOSITE OF TAPERED GATING FUNCTION
AND PREDISTORTED GAUSSIAN WAVEFORM



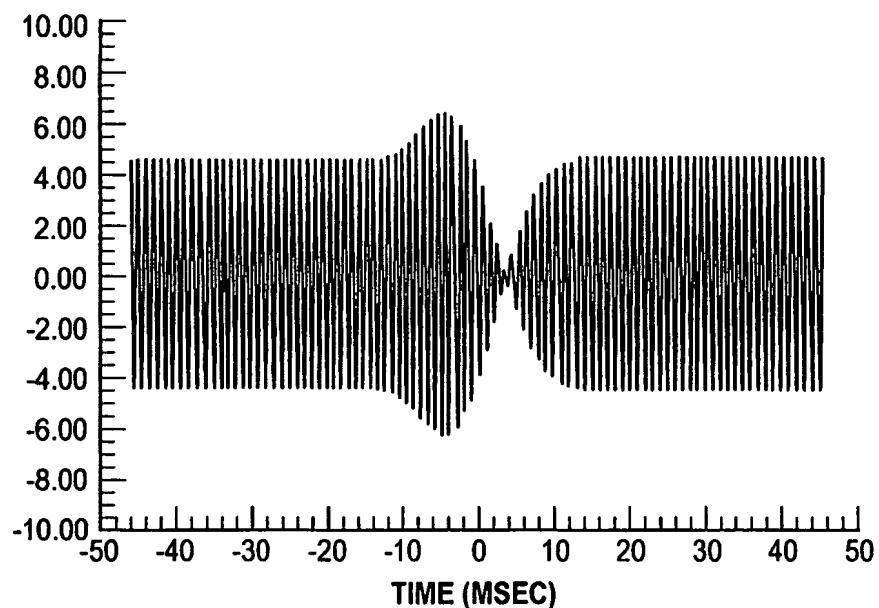
5/17

Fig. 14TIME WAVEFORMS OF A QUASI-RICKER
WAVELET AND A RICKER WAVELET**Fig. 15**ENERGY
SPECTRUM
QUASI
RICKER
WAVELETRICKER
WAVELET

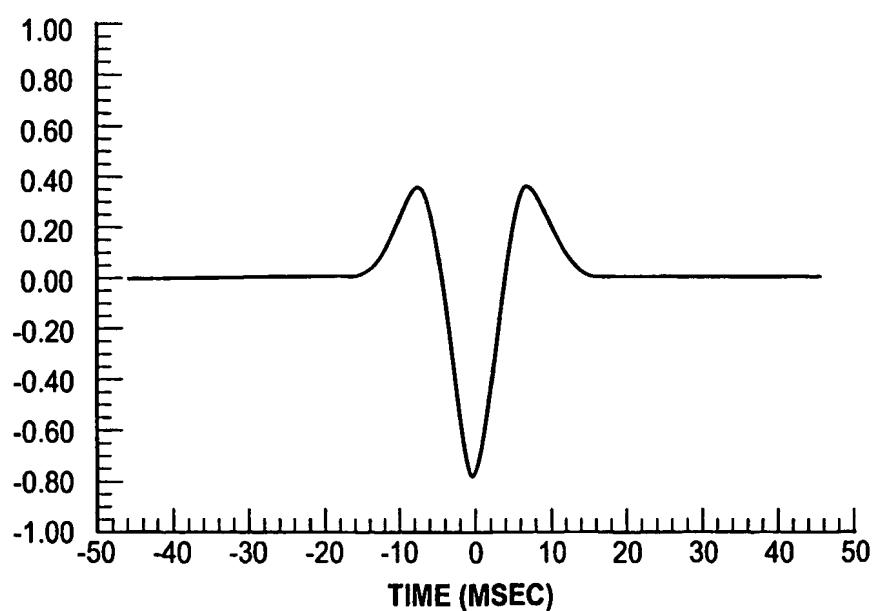
6/17

Fig. 16

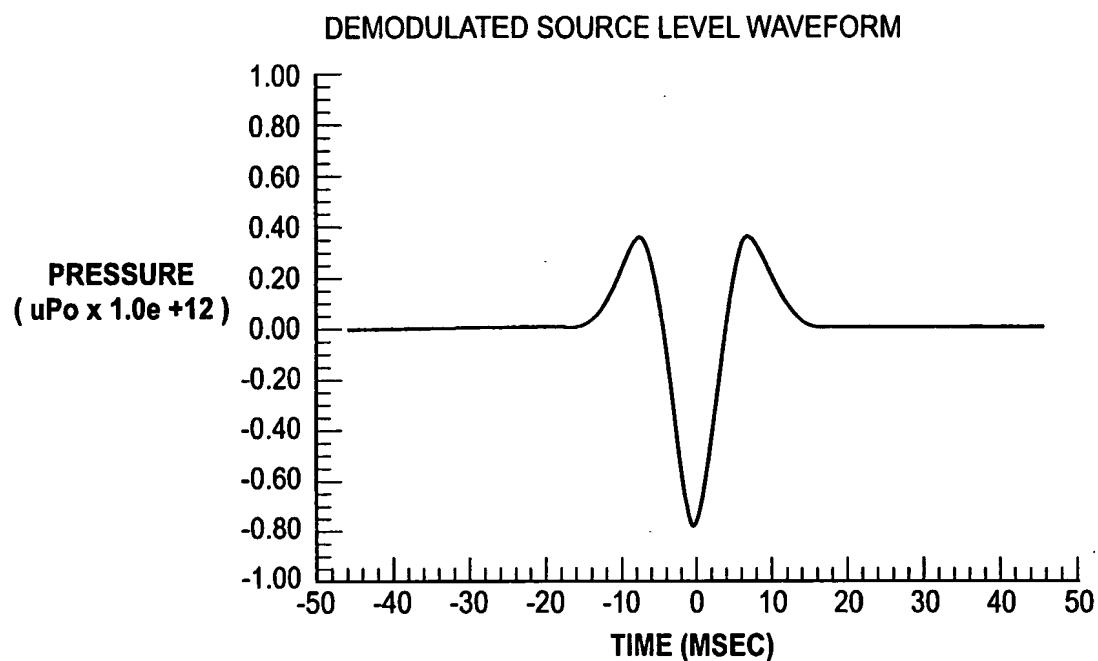
TRANSMITTED WAVEFORM

**Fig. 17**

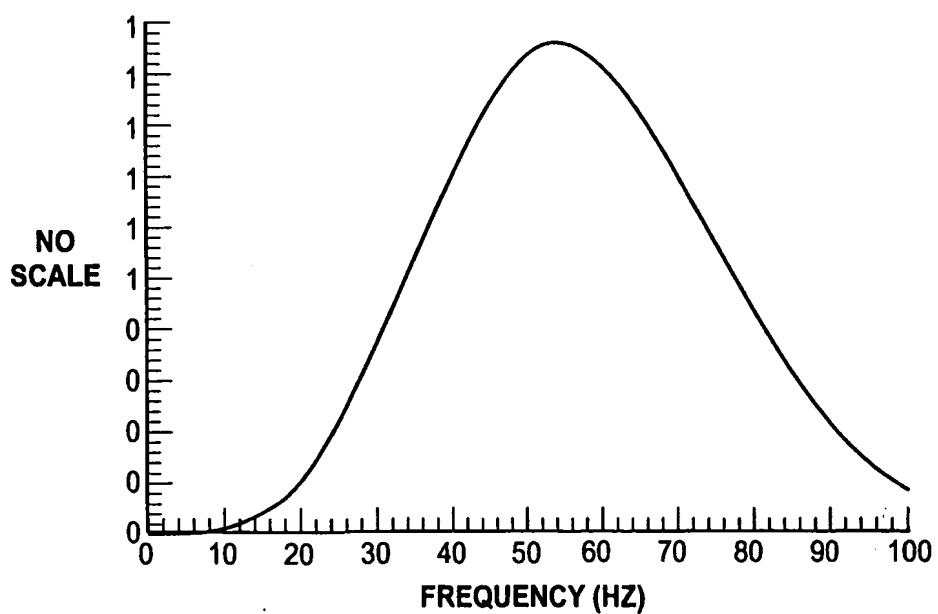
DEMODULATED SOURCE LEVEL WAVEFORM



7/17

Fig. 18**Fig. 19**

VOLTAGE SPECTRUM OF DEMODULATED WAVEFORM



8/17

Fig. 20
TRANSMITTED WAVEFORM

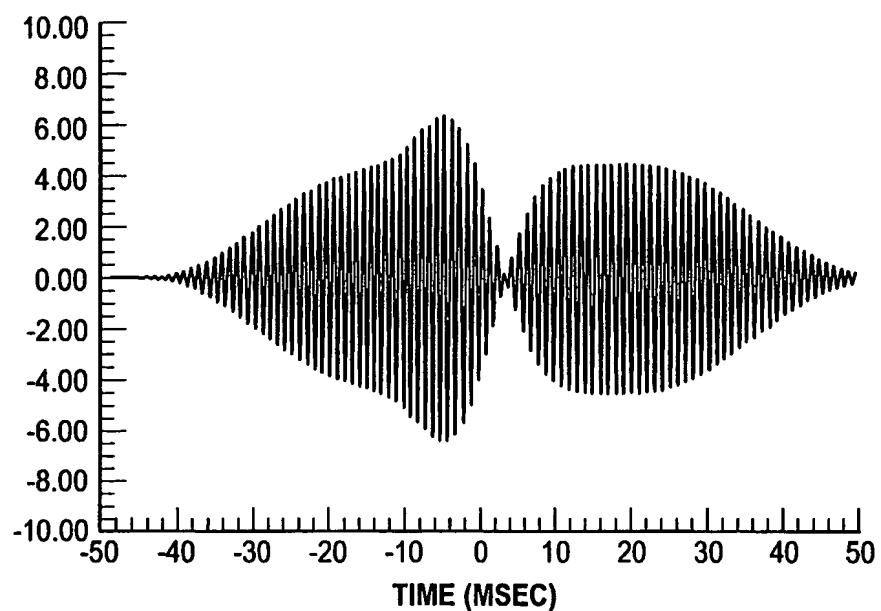
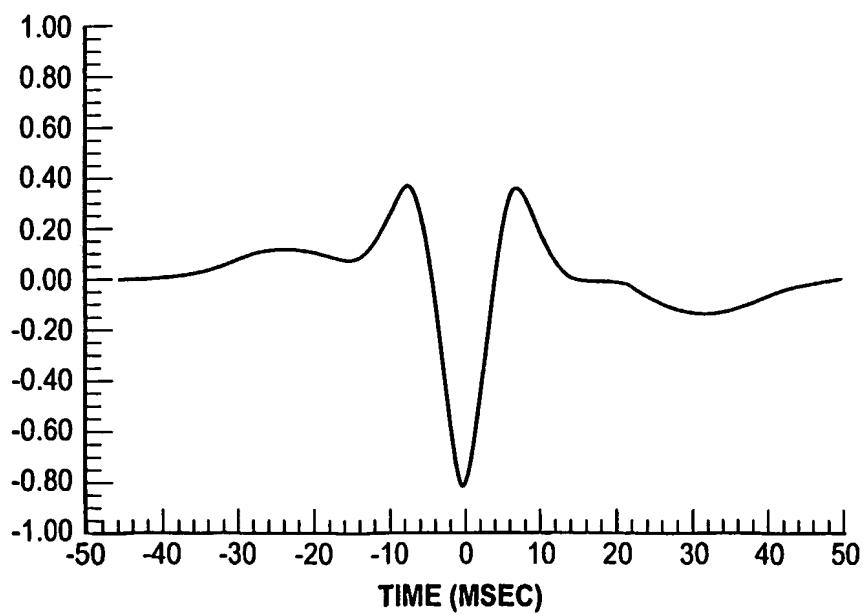
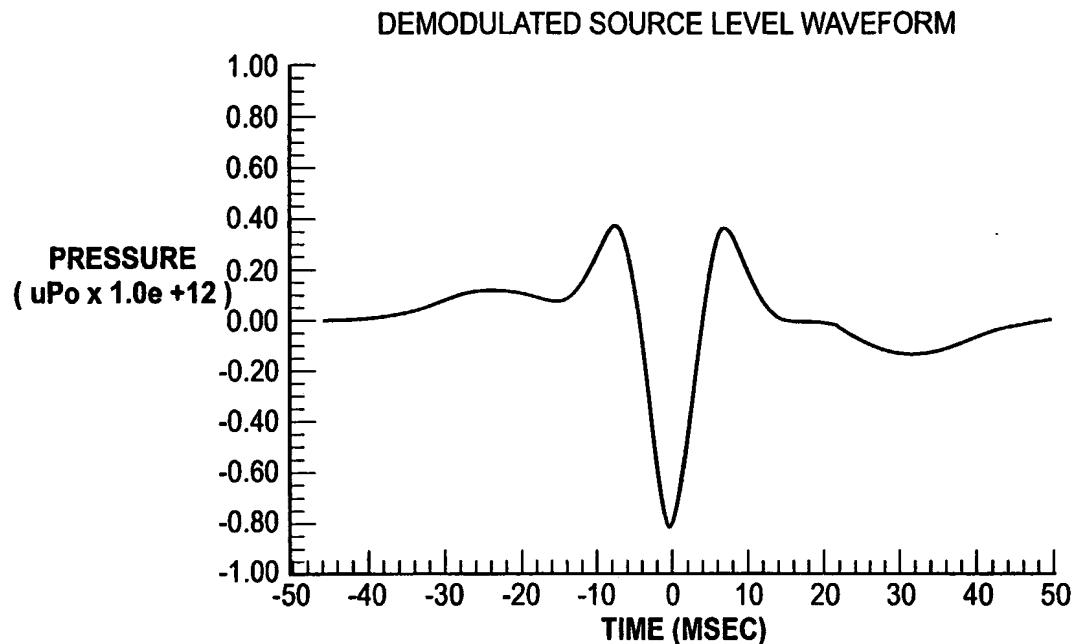


Fig. 21

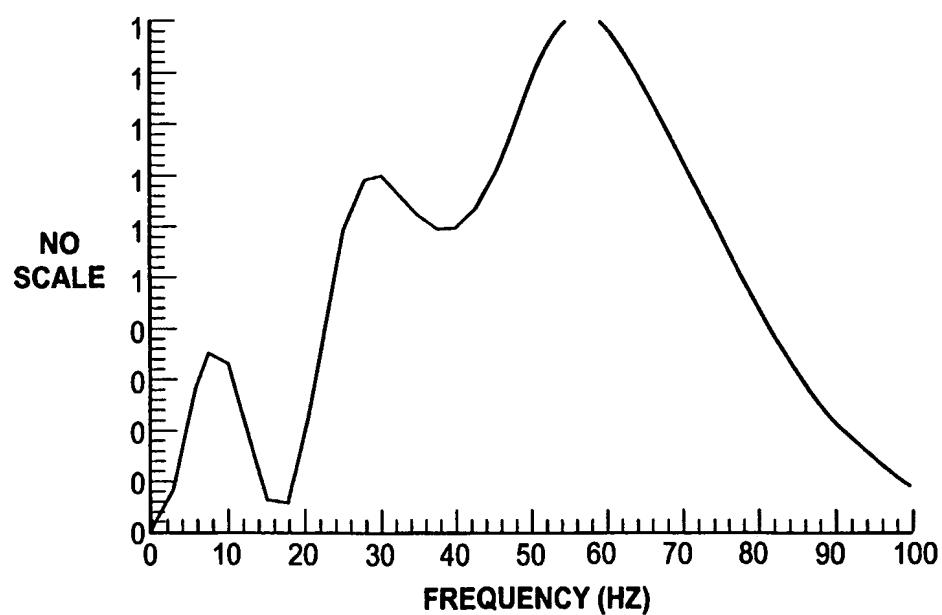
DEMODULATED SOURCE LEVEL WAVEFORM



9/17

Fig. 22**Fig. 23**

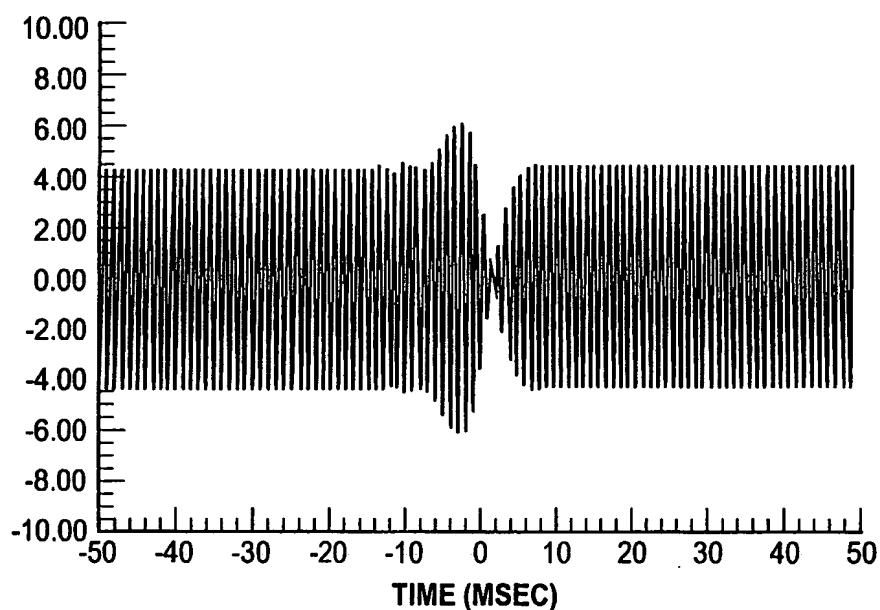
VOLTAGE SPECTRUM OF DEMODULATED WAVEFORM



10/17

Fig. 24

TRANSMITTED WAVEFORM



11/17

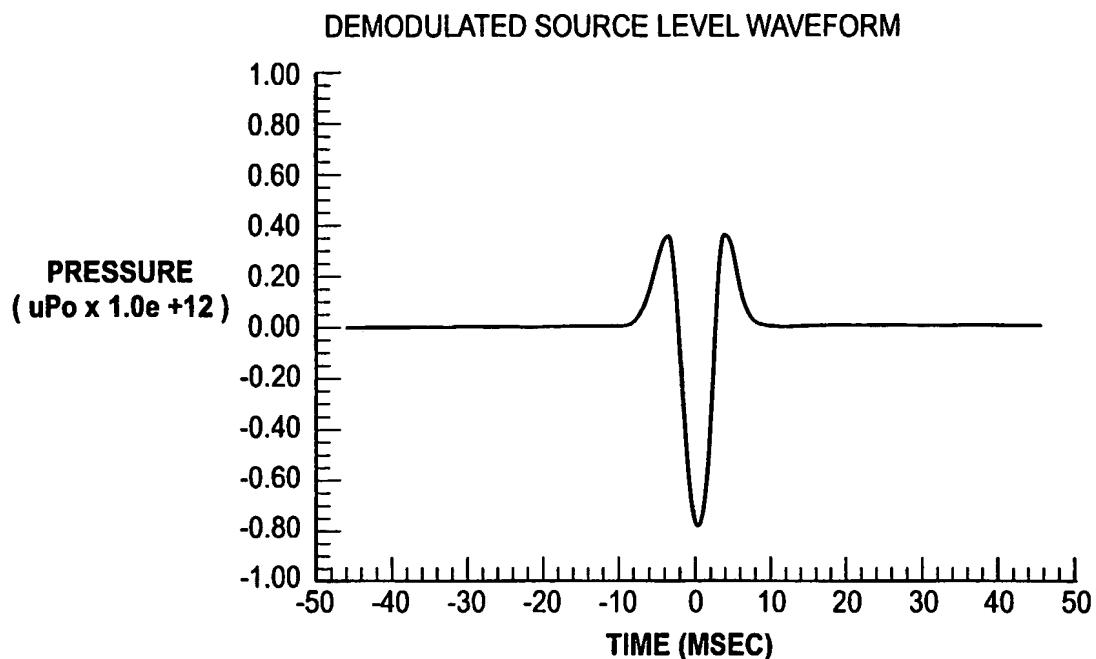
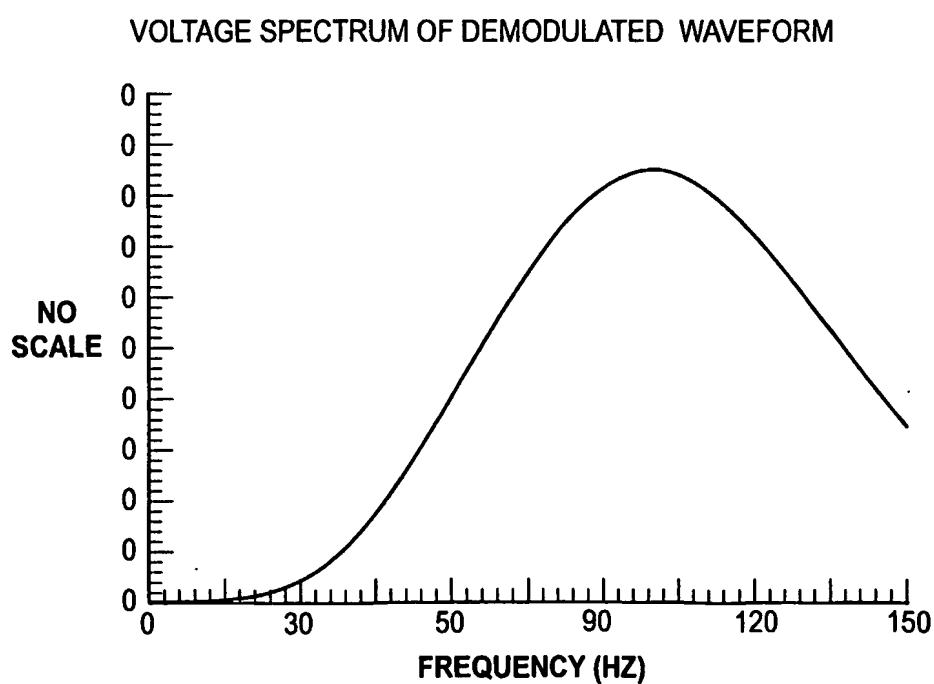
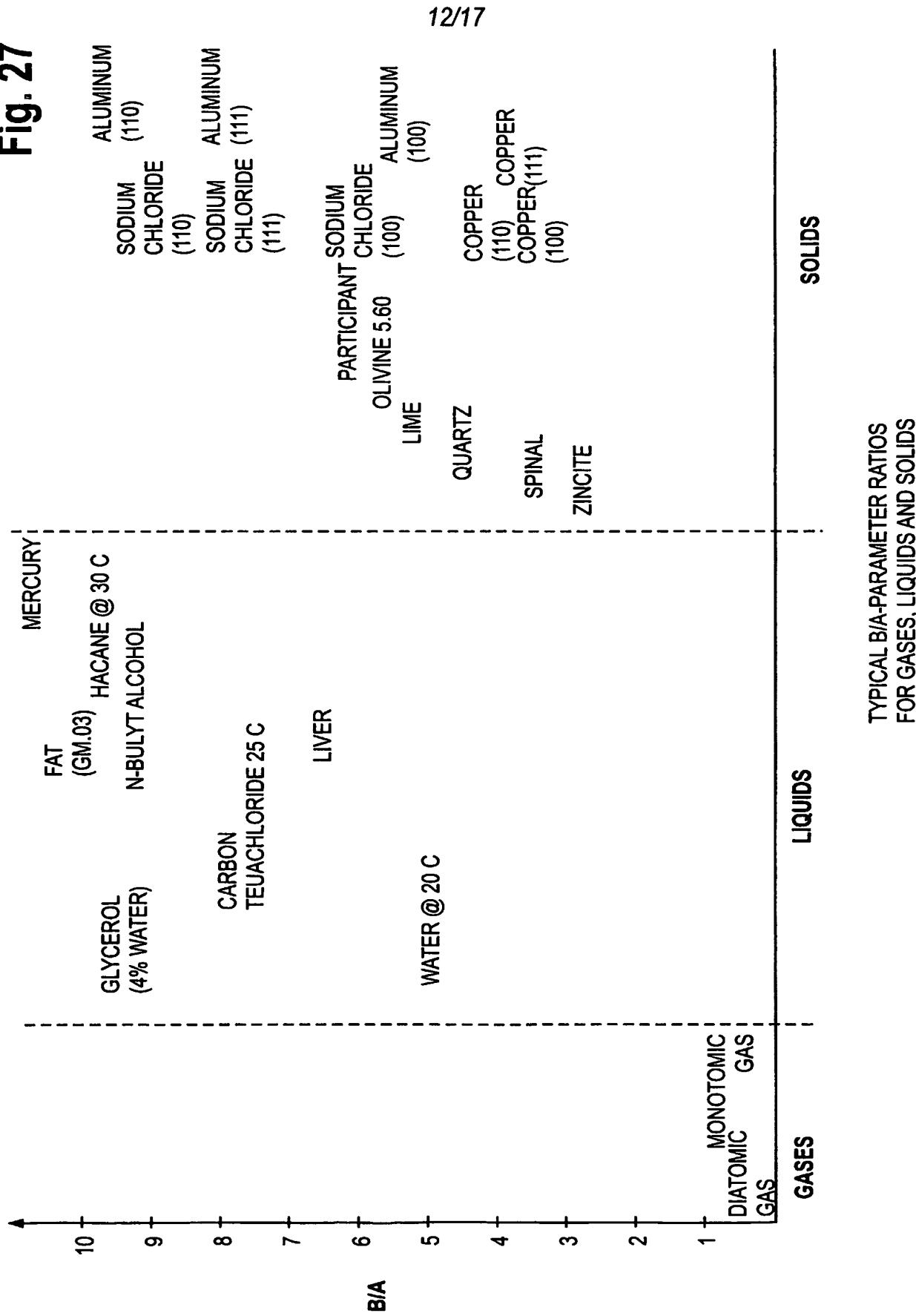
Fig. 25**Fig. 26**

Fig. 27

13/17
Fig. 28

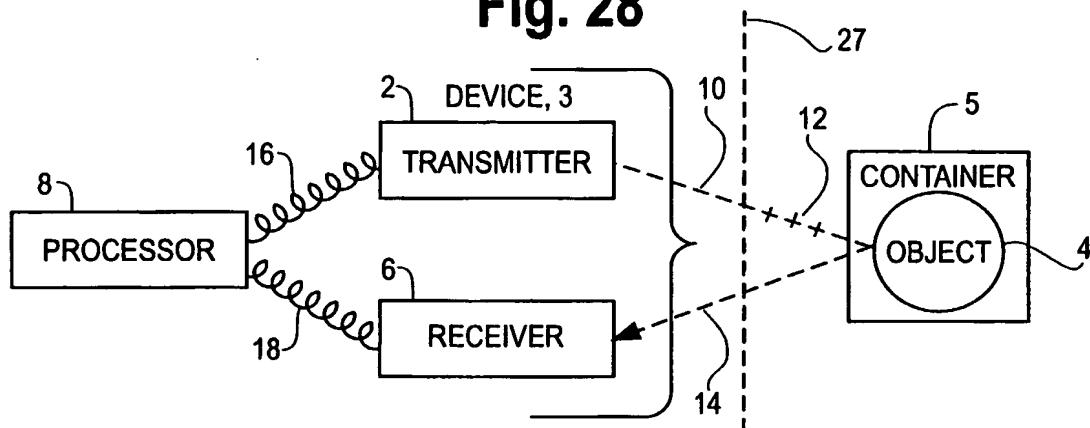


Fig. 29

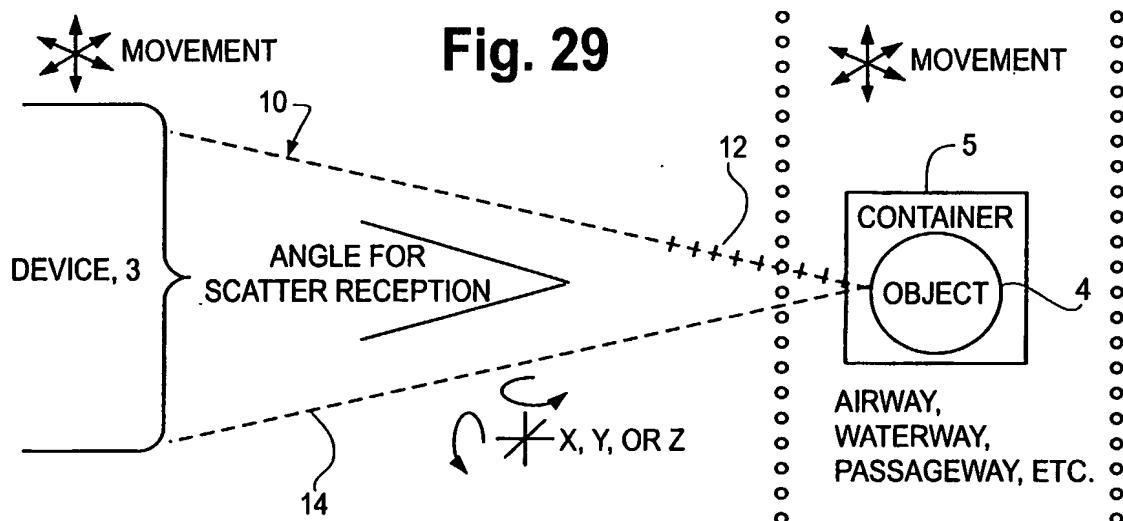
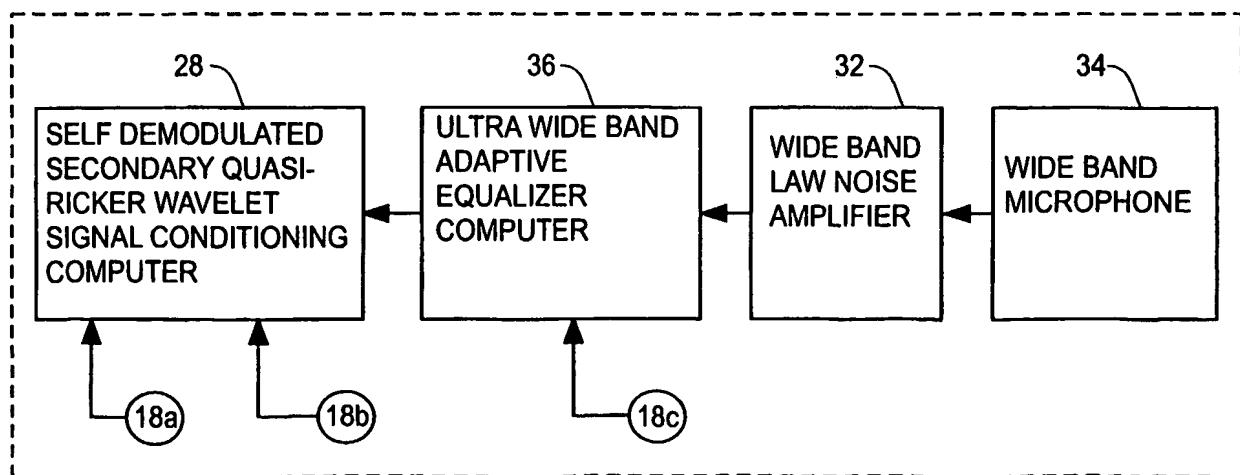


Fig. 30



14/17

Fig. 31

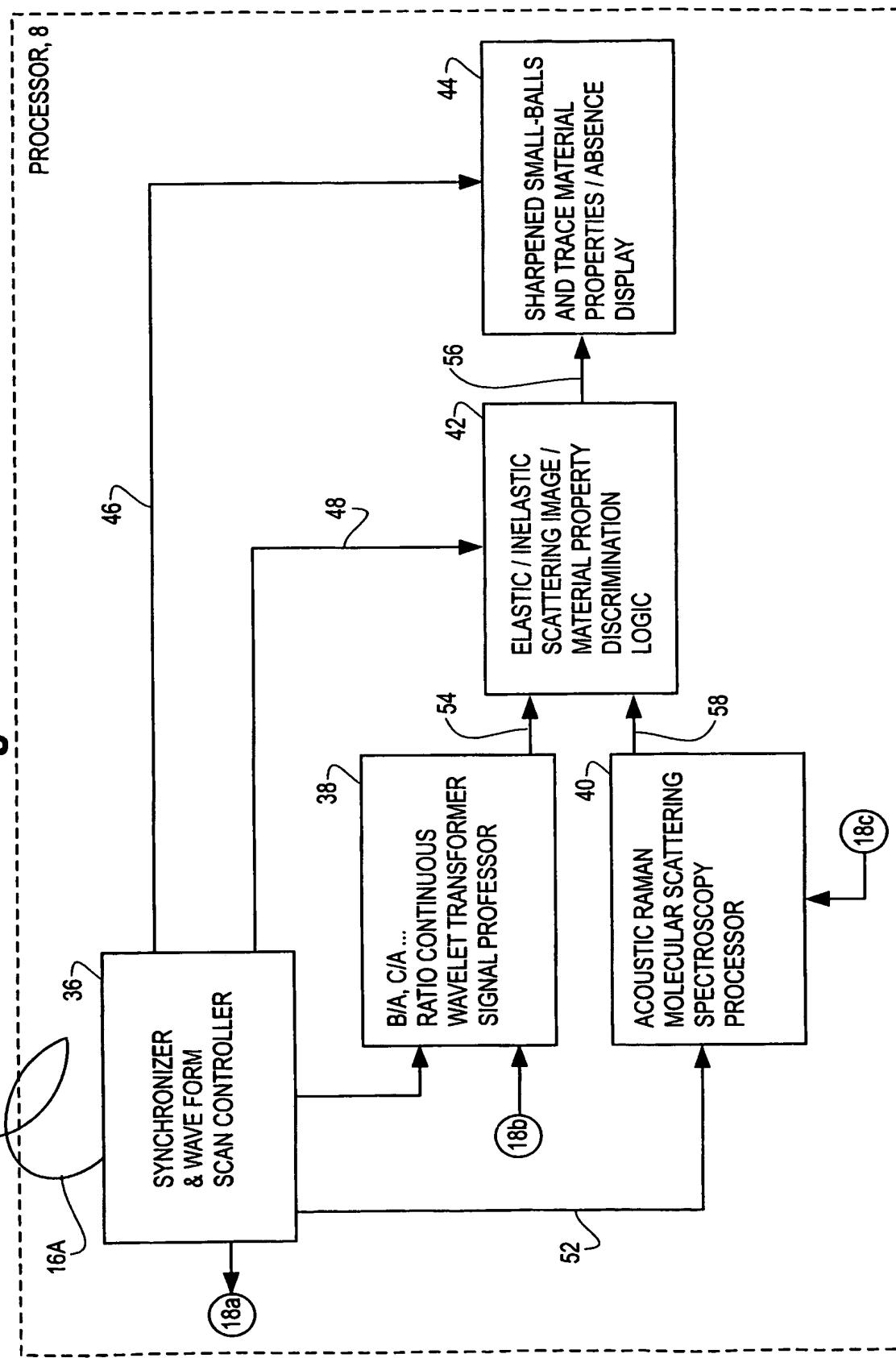
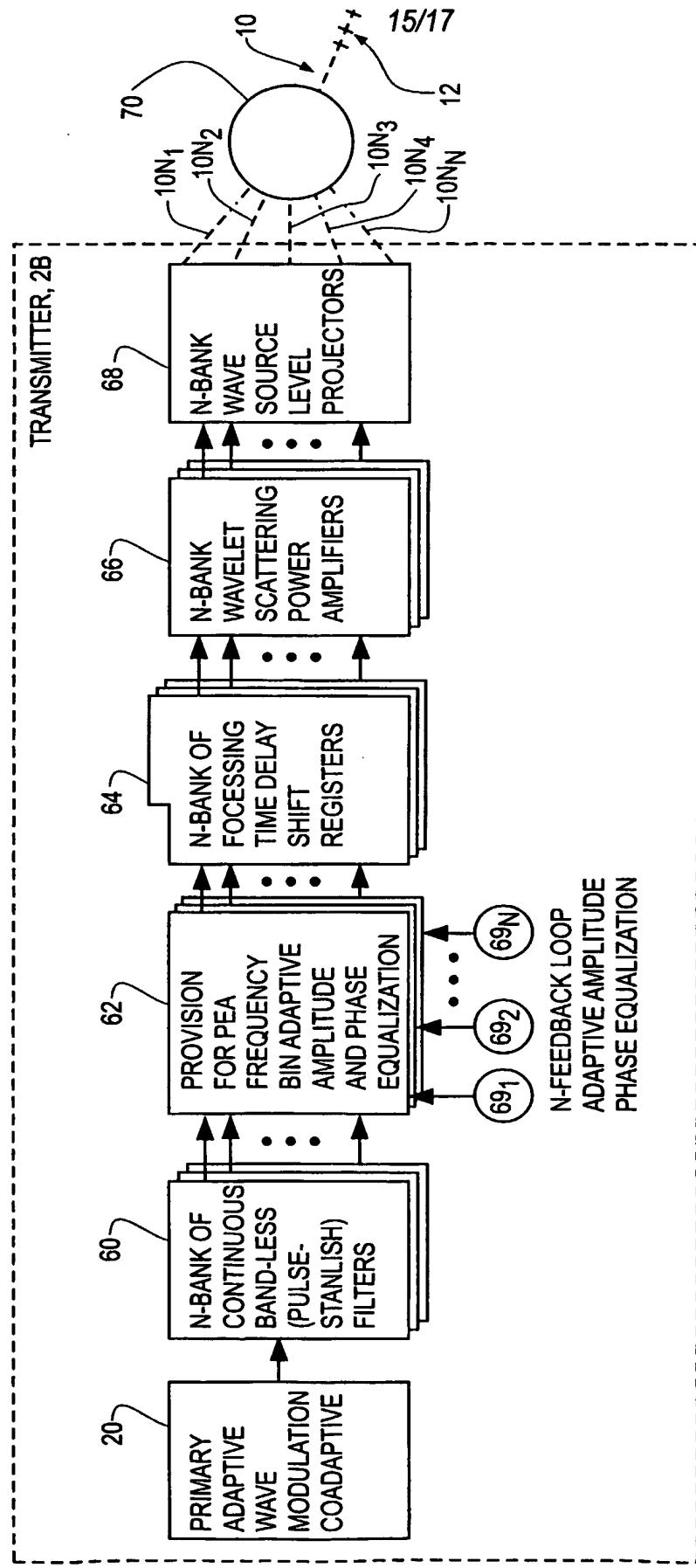


Fig. 32

16/17

Fig. 33

FAR FIELD OF N-PROJECTOR ARRAY AND SECONDARY QUASI-RICKER WAVELET FAR-FIELD NLS / SD INTERASIGN

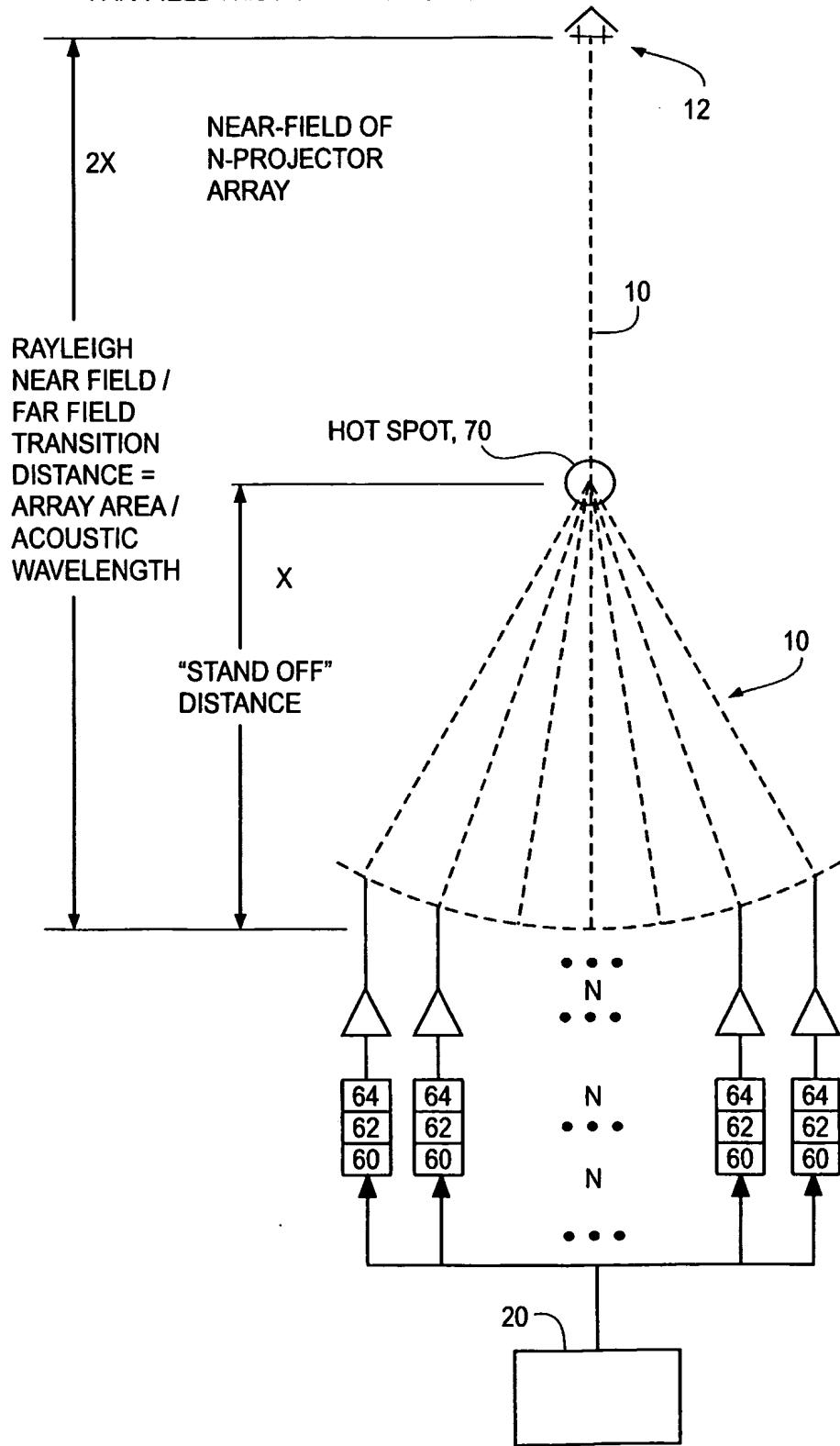


Fig. 34